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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CHIANG, JACK

ART UNIT	PAPER NUMBER
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2642

DATE MAILED: 04/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/125700

Applicant(s)

Fuhrmann et al.

Examiner

J. Chiang

Group Art Unit

2642

#16

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE -3- MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 2-20-02
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-9, 11-13, 15-24 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-9, 11-13, 15-24 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____.

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 11
- ☒ Notice of References Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

NOTE: Fig. 6 and its description have not been entered (see the argument section below).

CLAIMS

112-First Paragraph Rejection

1. Claims 18-21 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. See comments below.
2. Claims 18 - 21 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In claim 21, fifth paragraph, it claims "... said retainer being releasable by the user without employing a tool". This is questionable. In the original disclosure, page 7, it states to use "a pointed object", in page 10, it states "the front housing is mated to the rear housing and the two are screwed together with screws 43". It is not seen that it is not using "a tool". Therefore, the claim is considered unenabling and a new matter.

Further, in claim 18, paragraphs 1-4 describe "a housing" and "a detachable external wall", it appears to describe figs. 1-4. In the last paragraph of claim 18, it describes the position of the key unit, that appears to be fig. 5. They are two different embodiments. The original disclosure does not support to have the housing and the detachable wall shown in figs. 1-4 and yet to have the position of the key unit shown in

fig. 5 (note: the key unit in figs. 1-4 is not free to move when the external wall 14 is released).

Claims 19-21 have a similar problem as claim 18. Therefore, claims 18-21 are considered unenabling and a new matter.

Art Rejection

102 Rejection (Fig. 6 is not entered)

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-9, 11-12, 15-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Kobayashi et al. (US 5722055).

Regarding claim 1, Kobayashi shows:

A first housing (23);

A second housing (25);

At least one key unit (24);

At least one key sensor (41, 42);

Retaining means (22) comprising a cover (ie 43) for holding the electronic components (in 22) to the first housing (23, see 54 in fig. 33) when the second housing (25) is released from the first housing (23), the key unit (24) is free to move when the second housing (25) is released (see 50-51).

Regarding claim 15, Kobayashi shows:

A back housing (23);

At least one key unit (24);

At least one key sensor (41, 42);

A front housing (25);

At least one opening (see 25-1-7-1);

Retaining means (22) comprising a cover (ie 43) for holding the electronic components (in 22) to the back housing (23, see 54 in fig. 33) when the front housing (25) is released from the first housing (23);
the key unit (24) is held between the front and back housings (25, 23), and is free to move when the front housing (25) is released (see 50-51).

Regarding claim 16, Kobayashi shows:

A first housing (23);

A second housing (25);

At least one key unit (24);

At least one key sensor (41, 42);

Retaining means (22) comprising a cover (ie 43) for holding the electronic components (in 22) to the first housing (23, see 54 in fig. 33) when the second housing (25) is released from the first housing (23), the key unit (24) is sandwiched between the front and back housings (25, 23), and is free to move when the second housing (25) is released (see 50-51).

Regarding claim 17, Kobayashi shows:

A first housing (23);

A second housing (25);

Attachment means (50-51);

At least one key unit (24);

At least one key sensor (41, 42);

Retaining means (22) comprising a cover (ie 43) for holding the electronic components (in 22) to the first housing (23, see 54 in fig. 33) when the second housing (25) is released from the first housing (23), the key unit (24) is free to move when the second housing (25) is released (see 50-51).

Regarding claims 2-9, 11-12, the combination of Kobayashi and Semenik shows:

The user interface second housing (25 in Kobayashi);

A circuit board (ie 41, 45);

The key sensor (see 41);

The cover, the components and the circuit board (43, 41, 45);

The releasable cover (see 43, 43-4);

The cover aperture (see 43);

A sealing member (ie 40);

the first housing (23);

the second housing (25);

the key unit which is a key mat (24); and

the key sensor (41, 42).

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of Takagi et al. (US 523566).

Regarding claim 13, Kobayashi shows the key sensor (41, 42).

Kobayashi differs from the claimed invention in that it does not explicitly mention that the key sensor is a membrane type of key switch.

However, membrane type of key switch is one of the most common type of key switch, this is shown by Takagi (see 10). Hence, if it is found that Kobayashi is not the membrane type of switch, then it would have been obvious for one of ordinary skill in the art to use the membrane type of switch in Kobayashi with/without the teaching of Takagi, because it is a conventional type of switch.

6. Claims 18-24 are too questionable to evaluate, therefore, no art rejection is applied.

7. The following 103 rejection is drafted to assist applicant to understand the overall cited prior art which potentially cover the claimed material even if Fig. 6 is entered.

103 Rejection (If Fig. 6 is entered)

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-9, 11-12, 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (US 5722055) in view of Semenik et al. (US 5233506).

Regarding claim 1, Kobayashi shows:

A first housing (23);

A second housing (25);

At least one key unit (24);

At least one key sensor (41, 42);

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Retaining means (22) comprising a cover (ie 43) for holding the electronic components (in 22) to the first housing (23, see 54 in fig. 33) when the second housing (25) is released from the first housing (23), the key unit (24) is free to move when the second housing (25) is released (see 50-51).

Kobayashi differs from the claimed invention in that Kobayashi uses screw to attach the second and first housings together instead of using a press-on/catch.

However, in telephone housing assembly, it is commonly seen that a press-on/catch is used to attach a first and a second housing together. This is shown by Semenik (100, 200; or 500, 600). Hence, it would have been obvious for one skilled in the art to modify Kobayashi with a press-on/catch when assembling the first and second housings as taught by Semenik, because it is understood that cell phones are getting smaller, this is including reduction in size and mechanical structures, and such press-on/catch shown by Semenik achieves the function of attaching the housings together and yet to reduced dimensions (col. 1, lines 42-50, col. 2, lines 41-47 in Semenik).

Regarding claim 15, Kobayashi shows:

A back housing (23);

At least one key unit (24);

At least one key sensor (41, 42);

A front housing (25);

At least one opening (see 25-1-7-1);

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Retaining means (22) comprising a cover (ie 43) for holding the electronic components (in 22) to the back housing (23, see 54 in fig. 33) when the front housing (25) is released from the first housing (23);

the key unit (24) is held between the front and back housings (25, 23), and is free to move when the front housing (25) is released (see 50-51).

Kobayashi differs from the claimed invention in that Kobayashi uses screw to attach the second and first housings together instead of using a press-on/catch.

However, in telephone housing assembly, it is commonly seen that a press-on/catch is used to attach a first and a second housing together. This is shown by Semenik (100, 200; or 500, 600). Hence, it would have been obvious for one skilled in the art to modify Kobayashi with a press-on/catch when assembling the first and second housings as taught by Semenik, because it is understood that cell phones are getting smaller, this is including reduction in size and mechanical structures, and such press-on/catch shown by Semenik achieves the function of attaching the housings together and yet to reduced dimensions (col. 1, lines 42-50, col. 2, lines 41-47 in Semenik).

Regarding claim 16, Kobayashi shows:

A first housing (23);

A second housing (25);

At least one key unit (24);

At least one key sensor (41, 42);

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Retaining means (22) comprising a cover (ie 43) for holding the electronic components (in 22) to the first housing (23, see 54 in fig. 33) when the second housing (25) is released from the first housing (23), the key unit (24) is sandwiched between the front and back housings (25, 23), and is free to move when the second housing (25) is released (see 50-51).

Kobayashi differs from the claimed invention in that Kobayashi uses screw to attach the second and first housings together instead of using a press-on/catch.

However, in telephone housing assembly, it is commonly seen that a press-on/catch is used to attach a first and a second housing together. This is shown by Semenik (100, 200; or 500, 600). Hence, it would have been obvious for one skilled in the art to modify Kobayashi with a press-on/catch when assembling the first and second housings as taught by Semenik, because it is understood that cell phones are getting smaller, this is including reduction in size and mechanical structures, and such press-on/catch shown by Semenik achieves the function of attaching the housings together and yet to reduced dimensions (col. 1, lines 42-50, col. 2, lines 41-47 in Semenik).

Regarding claim 17, Kobayashi shows:

A first housing (23);

A second housing (25);

Attachment means (50-51);

At least one key unit (24);

At least one key sensor (41, 42);

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Retaining means (22) comprising a cover (ie 43) for holding the electronic components (in 22) to the first housing (23, see 54 in fig. 33) when the second housing (25) is released from the first housing (23), the key unit (24) is free to move when the second housing (25) is released (see 50-51).

Kobayashi differs from the claimed invention in that Kobayashi uses screw to attach the second and first housings together instead of using a press-on/catch.

However, in telephone housing assembly, it is commonly seen that a press-on/catch is used to attach a first and a second housing together. This is shown by Semenik (100, 200; or 500, 600). Hence, it would have been obvious for one skilled in the art to modify Kobayashi with a press-on/catch when assembling the first and second housings as taught by Semenik, because it is understood that cell phones are getting smaller, this is including reduction in size and mechanical structures, and such press-on/catch shown by Semenik achieves the function of attaching the housings together and yet to reduced dimensions (col. 1, lines 42-50, col. 2, lines 41-47 in Semenik).

Regarding claims 2-9, 11-12, the combination of Kobayashi and Semenik shows:

The user interface second housing (25 in Kobayashi);

A circuit board (ie 41, 45);

The key sensor (see 41);

The cover, the components and the circuit board (43, 41, 45);

The releasable cover (see 43, 43-4);

The cover aperture (see 43);

A sealing member (ie 40);
the first housing (23);
the second housing (25);
the key unit which is a key mat (24); and
the key sensor (41, 42).

10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Kobayashi and Semenik in view of Takagi et al. (US 523566).

Regarding claim 13, the combination of Kobayashi shows the key sensor (41, 42). Kobayashi differs from the claimed invention in that it does not explicitly mention that the key sensor is a membrane type of key switch.

However, membrane type of key switch is one of the most common type of key switch, this is shown by Takagi (see 10). Hence, if it is found that Kobayashi is not the membrane type of switch, then it would have been obvious for one of ordinary skill in the art to use the membrane type of switch in Kobayashi with/without the teaching of Takagi, because it is a conventional type of switch.

11. Claims 18-24 are too questionable to evaluate, therefore, no art rejection is applied.

ARGUMENT

12. In response to the remarks, pages 10-11, **fig. 6 and its description have not been entered**. Applicant cited page 4, lines 4-10, this portion of the specification is for the first embodiment (figs. 1-4). Fig. 5 is a second embodiment which has a different layout than figs. 1-4. There is no support for using features of figs. 1-4 in the second embodiment in fig. 5. See also 112 rejection above.

In page 11, about the press-on/catch, the specification describes it as to press housing 14 onto housing 3 in figs. 1-4 without using a special tool. But keep in mind, when housing 14 needs to be remove from housing 3, it requires a tool . Claim 17 is no long claiming the removal of the housing, therefore, the previous 112 rejection is withdrawn. However, claim 21 is still claiming removal of the housing without the tool, therefore, the previous 112 rejection is maintained.

About the Takagi reference, it is used to show a conventional type of membrane key, see rejection above. The claimed replaceable cover is shown by the combination of Kobayashi and Semenik, see rejections above.

13. Applicant's arguments with respect to claims 1-9, 11-13, 15-24 have been considered but are moot in view of the new ground(s) of rejection.

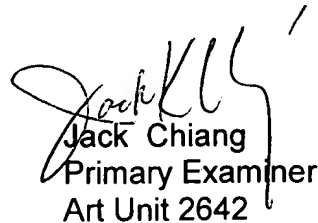
14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack Chiang whose telephone number is 703-305-4728. The examiner can normally be reached on Mon.-Fri. from 8:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Admad Matar, can be reached on (703) 305-4731. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.


Jack Chiang
Primary Examiner
Art Unit 2642